

WHAT IS CLAIMED IS

1. A radio transmission device for transmitting
data through a radio line, comprising:

data inputting means for inputting transmission
data;

input data storing means for storing the inputted
transmission data temporarily;

data compression means for reading data from the
data storing means to compress the data; and

data transmitting means for transmitting the
compressed data through the radio line.

2. A radio transmission device according to Claim 1,
additionally comprising:

throughput judging means for judging throughput in
the radio line.

3. A radio transmission device according to Claim 2,
wherein:

said input data storing means is comprised of a
memory that operates using a first-in first-out method;
and

said throughput judging means judges throughput
according to a difference between a data writing location
and a data reading location of the input data storing
means.

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4. A radio transmission device according to Claim 1, additionally comprising:

compression rate control means for controlling a data compression rate in the data compression means.

5. A radio transmission device according to Claim 1, additionally comprising:

throughput judging means for judging throughput in the radio line; and

compression rate control means for controlling a data compression rate in the data compression means according to the judged throughput.

6. A radio transmission device according to Claim 5, wherein:

said compression rate control means increases a data compression rate with a decrease in throughput, and decreases the data compression rate with recovery of the throughput.

7. A radio transmission device according to Claim 1, additionally comprising:

input speed control means for controlling data input speed in the data inputting means.

8. A radio transmission device according to Claim 1, additionally comprising:

throughput judging means for judging throughput in

the radio line; and

input speed control means for controlling data input speed in the data inputting means according to the judged throughput.

9. A radio transmission device according to Claim 8, wherein:

said input speed control means decreases data input speed with a decrease in throughput, and increases the data input speed with recovery of the throughput.

10. A radio transmission device according to Claim 1, wherein:

said data transmitting means performs best-effort-type packet transmission, which responds to a retransmission request.

11. A radio transmission device for transmitting data through a radio line, comprising:

data inputting means for inputting transmission data;

1 data compressing means for compressing the inputted transmission data;

not in 2
compressed data storing means for storing the compressed data temporarily; and

1 data transmitting means for reading the compressed data from the compressed data storing means to transmit

the compressed data through the radio line.

12. A radio transmission method for transmitting data through a radio line, comprising the steps of:

a data inputting step for inputting transmission data;

an input data storing step for storing the inputted transmission data temporarily;

a data compression step for reading data from the data storing means to compress the data; and

a data transmitting step for transmitting the compressed data through the radio line.

13. A radio transmission method according to Claim 12, additionally comprising the step of:

a throughput judging step for judging throughput in the radio line.

14. A radio transmission method according to Claim 13, wherein:

in the input data storing step, data is written and read by means of a first-in first-out method; and

in the throughput judging step, throughput is judged according to a difference between a data writing location and a data reading location of the input data storing step.

15. A radio transmission method according to Claim

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12, additionally comprising the step of:

a compression rate control step for controlling a data compression rate in the data compression step.

16. A radio transmission method according to Claim 12, additionally comprising the steps of:

a throughput judging step for judging throughput in the radio line; and

a compression rate control step for controlling a data compression rate in the data compression step according to the judged throughput.

17. A radio transmission method according to Claim 16, wherein:

in the compression rate control step, a data compression rate is increased with a decrease in throughput, and the data compression rate is decreased with recovery of the throughput.

18. A radio transmission method according to Claim 12, additionally comprising the step of:

an input speed control step for controlling data input speed in the data inputting step.

19. A radio transmission method according to Claim 12, additionally comprising the steps of:

a throughput judging step for judging throughput in the radio line; and

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an input speed control step for controlling data input speed in the data inputting step according to the judged throughput.

20. A radio transmission method according to Claim 19, wherein:

in the input speed control step, data input speed is decreased with a decrease in throughput, and the data input speed is increased with recovery of the throughput.

21. A radio transmission method according to Claim 12, wherein:

in the data transmitting step, best-effort-type packet transmission, which responds to a retransmission request, is performed.

22. A radio transmission method for transmitting data through a radio line, comprising the steps of:

a data inputting step for inputting transmission data;

a data compressing step for compressing the inputted transmission data;

a compressed data storing step for storing the compressed data temporarily; and

a data transmitting step for transmitting the compressed data through the radio line.

23. A radio receiving device for receiving data

through a radio line, comprising:

data receiving means for receiving compressed data through the radio line;

data decompressing means for decompressing the received data;

output data storing means for storing the decompressed data temporarily; and

data outputting means for reading data from the output data storing means to output the data.

24. A radio receiving device according to Claim 23, additionally comprising:

throughput judging means for judging throughput in the radio line.

25. A radio receiving device according to Claim 24, wherein:

said output data storing means is comprised of a memory that operates using a first-in first-out method; and

said throughput judging means judges throughput according to a difference between a data writing location and a data reading location of the output data storing means.

26. A radio receiving device according to Claim 23, wherein:

said data receiving means receives a compression rate parameter applied to transmission data; and

said data decompressing means performs data decompression processing according to the compression rate parameter.

27. A radio receiving device according to Claim 23, additionally comprising:

output speed control means for controlling data output speed in the data outputting means.

28. A radio receiving device according to Claim 27, wherein:

said data outputting means records data, which has been read from the output data storing means, on a given storage medium; and

said output speed control means controls data recording speed for recording on the storage medium.

29. A radio receiving device according to Claim 23, additionally comprising:

throughput judging means for judging throughput in the radio line; and

output speed control means for controlling data output speed in the data outputting means according to the judged throughput.

30. A radio receiving device according to Claim 29,

wherein:

said output speed control means decreases data output speed with a decrease in throughput, and increases the data output speed with recovery of the throughput.

31. A radio receiving device according to Claim 23, wherein:

said data receiving means performs best-effort-type packet transmission that issues a retransmission request in response to occurrence of a packet receiving error.

32. A radio receiving device for receiving data through a radio line, comprising:

data ^{reception} receiving means [for receiving compressed data through the radio line];

output data storing means for storing the received data temporarily by means of a first-in first-out method; and

data decompressing means [for reading data from the output data storing means by means of a first-in first-out method to decompress the data;] and

data outputting means for outputting the data decompressed by the data decompressing means.

33. A radio receiving method for receiving data through a radio line, comprising the steps of:

a data receiving step for receiving compressed data

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through the radio line;

a data decompressing step { for decompressing the received data; }

an output data storing step { for storing the decompressed data temporarily; } and

a data outputting step { for reading data, which has been stored temporarily, } to output the data.

34. A radio receiving method according to Claim 33, additionally comprising the step of:

a throughput judging step for judging throughput in the radio line.

35. A radio receiving method according to Claim 34, wherein:

in the output data storing step, data is stored by means of a first-in first-out method; and

in the throughput judging step, throughput is judged according to a difference between a data writing location and a data reading location of the output data storing step.

36. A radio receiving method according to Claim 33, wherein:

in the data receiving step, a compression rate parameter applied to transmission data is received; and

in the data decompressing step, data decompression

processing is performed according to the compression rate parameter.

37. A radio receiving method according to Claim 33, additionally comprising the step of:

an output speed control step for controlling data output speed in the data outputting step.

38. A radio receiving method according to Claim 37, wherein:

in the data outputting step, data, which has been read in the output data storing step, is recorded on a given storage medium; and

in the output speed control step, data recording speed for recording on the storage medium is controlled.

39. A radio receiving method according to Claim 33, additionally comprising the steps of:

a throughput judging step for judging throughput in the radio line; and

an output speed control step for controlling data output speed in the data outputting step according to the judged throughput.

40. A radio receiving method according to Claim 39, wherein:

in the output speed control step, data output speed is decreased with a decrease in throughput, and the data

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output speed is increased with recovery of the throughput.

41. A radio receiving method according to Claim 33, wherein:

in the data receiving step, best-effort-type packet transmission, which issues a retransmission request in response to occurrence of a packet receiving error, is performed.

42. A radio receiving method for receiving data through a radio line, comprising the steps of:

a data receiving step [for receiving compressed data through the radio line;

an output data storing step [for storing the received data temporarily by means of a first-in first-out method;

a data decompression step [for reading the temporarily stored data by means of a first-in first-out method to decompress the data; and

a data outputting step for outputting the data decompressed by the data decompressing step.

43. A radio transmitting/receiving system for transmitting data through a radio line, comprising:

a radio transmission unit comprising:

data inputting means for inputting transmission data;

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input data storing means for storing the inputted transmission data temporarily by means of a first-in first-out method;

data compression means for reading data from the data storing means to compress the data; and

data transmitting means for transmitting the compressed data through the radio line;

a radio receiving unit comprising:

data receiving means for receiving transmission data through the radio line;

data decompressing means for decompressing the received data;

output data storing means for storing the decompressed data temporarily by means of a first-in first-out method; and

data outputting means for reading data from the output data storing means to output the data.

44. A radio transmitting/receiving system according to Claim 43, additionally comprising:

throughput judging means for judging throughput in the radio line according to a difference between a data writing location and a data reading location of the input data storing means and/or the output data storing means.

45. A radio transmitting/receiving system according

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to Claim 43, additionally comprising:

throughput judging means for judging throughput in the radio line;

compression rate control means for controlling a data compression rate in the data compression means according to throughput in the radio line; and

compression rate notifying means for notifying the radio receiving unit of a compression rate parameter that has been used in the data compression means;

wherein:

said data decompressing means performs data decompression processing according to the notified compression rate parameter.

46. A radio transmitting/receiving system according to Claim 43, wherein:

said compression rate control means increases a data compression rate with a decrease in throughput, and decreases the data compression rate with recovery of the throughput.

47. A radio transmitting/receiving system according to Claim 43, additionally comprising:

throughput judging means for judging throughput in the radio line; and

input speed control means for controlling data

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input speed in the data inputting means according to throughput in the radio line.

48. A radio transmitting/receiving system according to Claim 47, wherein:

said input speed control means decreases data input speed with a decrease in throughput, and increases the data input speed with recovery of the throughput.

49. A radio transmitting/receiving system according to Claim 43, additionally comprising:

throughput judging means for judging throughput in the radio line; and

output speed control means for controlling data output speed in the data outputting means according to the judged throughput.

50. A radio transmitting/receiving system according to Claim 49, wherein:

said output speed control means decreases data output speed with a decrease in throughput, and increases the data output speed with recovery of the throughput.

51. A radio transmitting/receiving system according to Claim 43, wherein:

said data transmitting means and said data receiving means perform best-effort-type packet transmission, by which retransmission is controlled in

response to occurrence of a transmission data error.

52. A storage medium for storing computer software, by which processing of data transmission through a radio line is performed on a computer system, physically in a computer readable form, wherein:

said computer software comprises:

a data inputting step for inputting transmission data;

an input data storing step for storing the inputted transmission data temporarily;

a data compression step for reading data from the data storing means to compress the data; and

a data transmitting step for transmitting the compressed data through the radio line.

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